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EXAMINER

BRUENJES, CHRISTOPHER P

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 04/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,707

Applicant(s)

WELLMAN ET AL.

Examiner

Christopher P. Bruenjes

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 26-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 26-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I claims 1-15 and 26 in the reply filed on March 1, 2006 is acknowledged.
2. Claims 16-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on March 1, 2006.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. 103 rejections of claims 1-3, 5, 8-15, and 26 as anticipated by Williams of record in the Office Action mailed November 3, 2005, Pages 5-7 Paragraph 5, have been withdrawn due to Applicant's amendments in the Paper filed March 1, 2006.
4. The 35 U.S.C. 103 rejection of claim 4 over Williams in view of Shea '497 of record in the Office Action mailed November 3, 2005, Pages 8-9 Paragraph 6, has been withdrawn due to Applicant's amendments in the Paper filed March 1, 2006.

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5. The 35 U.S.C. 103 rejection of claim 6 over Williams in view of Nishio of record in the Office Action mailed November 3, 2005, Pages 9-10 Paragraph 7, has been withdrawn due to Applicant's amendments in the Paper filed March 1, 2006.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 5, 8, 10-11, 13-15, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Bagnulo (USPN 3,686,747).

Regarding claim 1, Bagnulo anticipates a slip collar comprising a tubular outer wall portion (reference number 11, Figure 1 or 2), a tubular inner wall portion (reference number 10, Figure 1 or 2), an intermediate portion (reference number 7, Figure 1) disposed between the tubular outer wall portion and the tubular inner wall portion and a slot region (reference number 8 or 9, Figure 1) defined by the tubular outer wall portion and the tubular inner wall portion. The tubular outer

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wall portion, tubular inner wall portion, and the intermediate portion all comprise a fiber reinforced plastic material (col.2, 1.47-51) and is formed of an integral one-piece structure (Figure 1). Regarding claim 2, the tubular outer wall portion and the tubular inner wall portion are each generally cylindrically shaped (Figure 1 and the fact that they surround a cylindrically shaped pipe). Regarding claim 5, the tubular inner wall portion is shorter than the tubular outer wall portion (Figure 1). Regarding claim 8, an adhesive composition is present in the slot region (col.2, 1.61-62). Regarding claim 10, Bagnulo anticipates a slip collar comprising a tubular outer wall portion (reference number 11, Figure 1 or 2), a tubular inner wall portion (reference number 10, Figure 1 or 2), an intermediate portion (reference number 7, Figure 1) disposed between the tubular outer wall portion and the tubular inner wall portion, a first slot region (reference number 8, Figure 1), and a second slot region (reference number 9, Figure 1), wherein each slot region is defined by the tubular outer wall portion and the tubular inner wall portion. The tubular outer wall portion, tubular inner wall portion, and the intermediate portion all comprise a fiber reinforced plastic material (col.2, 1.47-51) and is formed of an integral one-piece structure and the slot regions face away from each other (Figure 1).

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Regarding claim 11, the tubular outer wall portion and the tubular inner wall portion are each generally cylindrically shaped (Figure 1 and the fact that they surround a cylindrically shaped pipe). Regarding claim 13, the slip collar is adapted to join two duct sections (see abstract). Regarding claim 14, the tubular inner wall portion is shorter than the tubular outer wall portion (Figure 1). Regarding claim 15, Bagnulo anticipates a duct assembly comprising the slip collar of claim 10, a first duct (reference number 1, Figure 2) including a first end inserted into the first slot region) and a second duct (reference number 2, Figure 2) including a second end inserted into the second slot region. Regarding claim 26, the limitation "formed using a milling process" is a process limitation that receives little patentable weight in an article claim. Process limitations in article claims only limit the article by the structure formed by the process and not the actual process steps. In this case, the slot regions of Bagnulo have the same structure as a slot region formed by a milling process, so the slot regions of Bagnulo anticipate the limitation of claim 26.

Claim Rejections - 35 USC § 103

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bagnulo in view of Shea et al (USPN 5,505,497).

Bagnulo teaches all that is claimed in claim 1 as presented above, but fail to teach that the slip collar has only one slot region. However, Shea et al teach that it is well known in the art to place two U-shaped elements around the ends of two ducts to be joined in order to form a leak proof joint that is

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resistant to fire and chemical corrosion from gases and/or condensate within the duct sections by bonding the two U-shaped elements together (see abstract). One of ordinary skill in the art would have recognized that once the two U-shaped elements each being a slip collar having only one slot region are bonded together they form the same structure as the single slip collar having two slot regions. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the slip collar of Bagnulo as two separate slip collars each having only one slot region in order to form a duct joint collar assembly, in which the slip collars can be bonded to the ends of the duct before bonding the ducts together, which would leave only the step of bonding the two slip collars together at the site of assembly, as taught by Shea et al.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the slip collar of Bagnulo as two separate slip collars having one slot region, in order to form a duct joint collar assembly that enables more of the steps of joining two ducts together to be completed before arriving at the assembly sight where the ducts will be joined, as taught by Shea et al.

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10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bagnulo in view of Nishio (USPN 6,045,164).

Bagnulo teaches all that is claimed in claim 1 as presented above, but fails to teach that the tubular inner wall portion comprises a fluoropolymer material. However, Nishio teaches that fluoropolymers such as polytetrafluoroethylene are superior in resistance to chemicals and heat and are used on the inner tubular portions of pipe joints because of its superior chemical and heat resistance (col.4, 1.43-53). One of ordinary skill in the art would have recognized that fluoropolymers that are superior in resistance to chemicals and heat would be beneficial in use in forming the inner tubular wall portion of a pipe joint. One of ordinary skill in the art would have also recognized that Bagnulo and Nishio are analogous insofar as both references are concerned with pipe joints.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the tubular inner wall portion of Bagnulo so that it includes a fluoropolymer material, since Nishio teaches that fluoropolymers are used in the inner wall portions of pipe joints and connectors in order to provide the pipe joint with chemical and heat resistance.

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11. Claims 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bagnulo.

Bagnulo teaches all that is claimed in claims 1 and 10 as presented above, but fails to teach the thickness of the outer wall portion. However, one of ordinary skill in the art would have recognized that the outer wall portion thickness would be determined through routine experimentation depending on the intended end size of the sleeve for joining two pipes.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to optimize the thickness of the outer wall portion of the slip collar of Bagnulo within the claimed range based on the desire to have sufficient joining strength to hold the two pipes together while minimizing the amount of material used, absent the showing of unexpected result.

12. Claims 3, 7, 12, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bagnulo in view of Shea (USPN 5,383,994).

Bagnulo teaches all that is claimed in claims 1, 10, and 32 as presented above, but fail to teach that the inner wall portion and the outer wall portion comprise different polymeric materials. However, Shea teaches that two major problems are

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faced when using fiberglass reinforced plastic materials in tubular articles including fire resistance and chemical resistance. Shea goes on to teach that in order to overcome these issues the tubular articles are formed having an inner wall portion and outer wall portion in the same manner as the Bagnulo pipe joint. Shea teaches that the matrix used to form the outer wall portion is a phenol resorcinol type fire retardant resin and the inner tubular wall portion is formed of a vinyl ester (col.3, 1.9-15). One of ordinary skill in the art also would have recognized that tubular articles as well as the joints connecting two tubular articles require a fire resistant outer portion and chemical resistant inner portion in order to meet desired functions and be used in certain environments, as taught by Shea.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to use a fiberglass reinforced phenol resorcinol material as the fiber reinforced plastic outer tubular portion of Bagnulo in order to provide a fire resistant outer portion, as taught by Shea, and to use vinyl ester as the resin in the fiberglass reinforced material of Bagnulo forming the inner portion of the tubular article joint, in order to provide chemical resistance, as taught by Shea.

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13. Claims 9, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bagnulo in view of Williams et al (USPN 5,961,154).

Regarding claim 9, Bagnulo teaches all that is claimed in claim 8 as presented above, but fails to teach that the adhesive composition comprises a novolac or an epoxy resin. However, Williams et al teach that novolac epoxy resin is a well known sealant for placing in a slot region of a slip collar used to join two tubular articles (col.4, 1.2-4). One of ordinary skill in the art would have recognized that a known sealant for the purpose of bonding tubular articles to a slip collar would be chosen as the sealant placed in the slot region of a slip collar depending on the intended end result of the article.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to select novolac epoxy resin as the adhesive composition in the slot region of Bagnulo since it is a well known adhesive for that purpose, as taught by Williams et al, and since it is obvious to one having ordinary skill in the art to select a material based on its suitability from well known materials for the intended purpose, absent the showing of unexpected result.

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Regarding claims 27 and 29, Bagnulo teaches all that is claimed in claims 1 and 10 as presented above, but fails to teach that the tubular outer portion includes apertures, and wherein set screws are disposed in the apertures. However, Bagnulo teach that a metallic sleeve is formed as part of the tubular outer portion of the slip collar and is required to be provided with radially inwardly directed pressure in order to compress the flanges of the tubular articles to increase the sealing strength between the tubular articles and the joint assembly (col.3, 1.7-20). Williams et al tech that apertures can be formed in the outer metal sleeve of a slip collar for joining tubular articles so that set screws may be placed in the apertures in order to bring the metal sleeve into a tighter position around the rest of the collar, which is radially inwardly directed pressure. Therefore, one of ordinary skill in the art would have recognized that metal sleeves integrated as part of the outer wall portion of a tubular article joint assembly are provided with apertures and set screws disposed in the apertures in order to provide the metal sleeve with a tighter fit around the assembly, as taught by Williams et al, which provides the assembly with a radially inwardly directed pressure.

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Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to provide the outer integrated metal sleeve of Bagnulo with apertures and set screws in the apertures in the same manner as done in Williams et al in order to bring the metal sleeve into a tighter fit around the slip collar of Bagnulo, which would cause a radially inwardly directed pressure on the slip collar of Bagnulo as desired by Bagnulo.

14. Claims 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bagnulo in view of Williams et al as applied to claims 27 and 29 above, and further in view of Shea (USPN 5,383,994).

Bagnulo and Williams et al taken as a whole teach all that is claimed in claims 27 and 29 as presented above, but fail to teach forming the tubular inner wall portion from a chemically resistant material and the tubular outer wall portion from a fire-resistant material. However, Shea teaches that two major problems are faced when using fiberglass reinforced plastic materials in tubular articles including fire resistance and chemical resistance. Shea goes on to teach that in order to overcome these issues the tubular articles are formed having an inner wall portion and outer wall portion in the same manner as

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the Bagnulo pipe joint. Shea teaches that the matrix used to form the outer wall portion is a phenol resorcinol type fire retardant resin and the inner tubular wall portion is formed of a vinyl ester (col.3, 1.9-15). One of ordinary skill in the art also would have recognized that tubular articles as well as the joints connecting two tubular articles require a fire resistant outer portion and chemical resistant inner portion in order to meet desired functions and be used in certain environments, as taught by Shea.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to use a fiberglass reinforced phenol resorcinol material as the fiber reinforced plastic outer tubular portion of Bagnulo in order to provide a fire resistant outer portion, as taught by Shea, and to use vinyl ester as the resin in the fiberglass reinforced material of Bagnulo forming the inner portion of the tubular article joint, in order to provide chemical resistance, as taught by Shea.

15. Claims 1-3, 5, 7-15, and 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al (USPN 5,961,154) in view of Shea (USPN 5,383,994).

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Regarding claim 1, Williams et al anticipate a slip collar (the combination of reference numbers 20 and 60, Figure 2). The slip collar comprises a tubular outer wall portion (reference number 20, Figure 2) and a tubular inner wall portion (reference number 60, Figure 2). An intermediate portion (reference number 62, Figure 2) formed of a circumferential rib on the surface of the tubular inner wall portion contacting the outer wall portion. Therefore, it is disposed between the tubular outer wall portion and the tubular inner wall portion. A slot region is defined by the tubular outer wall portion and the tubular inner wall portion on either side of the circumferential rib. The tubular inner wall portion and the intermediate portion comprise a fiber reinforced plastic material (col.7, 1.55). The tubular outer wall portion, the tubular inner wall portion, and the intermediate portion form an integral one-piece structure because as shown in Figures 7 and 7a, the outer wall portion, inner wall portion, and intermediate portion are all integrally bonded together by adhesive (col.8, 1.43-52). Note "integral one-piece structure" only requires that as a finished product the slip collar is integral and is one-piece. In this case, since the elements are bonded together by adhesive to form a one-piece structure the slip collar of Williams et al is an integral one-piece structure.

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Williams et al fail to teach that the tubular outer wall portion comprises a fiber reinforced plastic material. However, Shea teaches that fiberglass reinforced plastics are substituted for any metals used in the formation of exhaust systems because the fiberglass reinforced plastic material is lighter (col.1, 1.44-47). One of ordinary skill in the art would have recognized that fume duct joints and fume ducts themselves are made completely from fiberglass reinforced plastics in place of metals in order to form lighter ducts, as taught by Shea.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to substitute a fiberglass reinforced plastic material for the metal outer tubular portion of Williams et al in order to provide a fire resistant outer portion that is lighter in weight, as taught by Shea.

Regarding claim 2, Williams et al teach that the tubular outer wall portion and the tubular inner wall portion are each generally cylindrically shaped (Figure 2).

Regarding claims 3, 7, 12, 28, 30, and 33-35, Williams et al fail to teach that the outer wall portion and inner wall portion comprise different polymeric materials. However, Shea teaches that two major problems are faced when using fiberglass reinforced plastic materials in fume ducts systems including

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fire resistance and chemical resistance. . Shea goes on to teach that in order to overcome these issues the ducts are formed having an inner wall portion and outer wall portion in the same manner as the Williams et al fume duct and fume duct joint assembly. Shea teaches that the matrix used to form the outer wall portion is a phenol resorcinol type fire retardant resin and the inner tubular wall portion is formed of a vinyl ester (col.3, 1.9-15). One of ordinary skill in the art also would have recognized that the fume ducts as well as the joints require a fire resistant outer portion and chemical resistant inner portion in order to function adequately as a fume duct assembly, as taught by Shea.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to substitute a fiberglass reinforced phenol resorcinol material for the metal outer tubular portion of Williams et al in order to provide a fire resistant outer portion that is lighter in weight, as taught by Shea, and to use vinyl ester as the resin in the fiberglass reinforced material of Williams et al forming the inner portion of the fume duct joint, in order to provide chemical resistance, as taught by Shea.

Regarding claim 5, the tubular inner wall portion is shorter than the tubular outer wall portion (Figure 7).

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Regarding claims 8 and 9, the slip collar further comprises an adhesive composition (reference number 94, Figure 7) comprising novolac or epoxy resin in the slot region (col.4, 1.2-4).

Claim 10 includes all of the limitations of claim 1 and that the tubular outer wall portion and inner wall portion form two slot regions that face away from each other. Williams et al teaches that a slot is formed on either side of the intermediate portion or circumferential rib (Figure 2).

The limitations of claims 11, 12, and 14, are taught by Williams et al in the same manner as shown above with regards to claims 2, 3, and 5 respectively.

Regarding claim 13, the slip collar is adapted to join two duct sections (reference number 68 and 70 as shown in Figure 2).

Regarding claim 15, Williams et al teach a duct assembly comprising the slip collar (represented by the combination of reference numbers 20 and 60, Figure 2), a first duct (reference 68, Figure 2) including a first end inserted into the first slot region and a second duct (reference number 70, Figure 2) including a second end inserted into the second slot region.

Regarding claim 26, the limitation that the "slot region is formed using a milling process" is a process limitation in an article claim. Process limitations are only given patentable

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weight in an article claim insofar as what structure that process produces. In this case, whether a milling process or another process is used to form the slot region does not change the structure of the article. The article of Williams et al is determined to comprise a slot region with the same structure as a slot region formed by a milling process, absent the showing of evidence that the particular process produces an unobvious difference.

Regarding claims 27 and 29, the tubular outer portion includes apertures (reference number 38, Figure 1) and set screws disposed in the apertures (Figure 1).

Regarding claims 31 and 32, the thickness of the outer wall portion is within the claimed range of 3/16-inch to about 1-1/2 inches (col.7, 1.18-24).

16. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al in view of Shea as applied to claim 1 above, and further in view of Shea et al (USPN 5,505,497).

Williams et al and Shea teach all that is claimed in claim 1 as presented above, but fail to teach that the slip collar has only one slot region. However, Shea et al teach that it is well known in the art to place two U-shaped elements around the ends

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of two ducts to be joined in order to form a leak proof joint that is resistant to fire and chemical corrosion from gases and/or condensate within the duct sections by bonding the two U-shaped elements together (see abstract). One of ordinary skill in the art would have recognized that once the two U-shaped elements each being a slip collar having only one slot region are bonded together they form the same structure as the single slip collar having two slot regions. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the slip collar of Williams et al as two separate slip collars each having only one slot region in order to form a duct joint collar assembly, in which the slip collars can be bonded to the ends of the duct before bonding the ducts together, which would leave only the step of bonding the two slip collars together at the site of assembly, as taught by Shea et al.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the slip collar of Williams et al as two separate slip collars having one slot region, in order to form a duct joint collar assembly that enables more of the steps of joining two ducts together to be completed before arriving at the assembly sight where the ducts will be joined, as taught by Shea et al.

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17. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al in view of Shea as applied to claim 1 above, and further in view of Nishio (USPN 6,045,164).

Williams et al and Shea teach all that is claimed in claim 1 as presented above, but fail to teach that the tubular inner wall portion comprises a fluoropolymer material. However, Williams et al teach that the fume duct joint is used to join fume ducts that are used to carry corrosive chemicals and that the ducts and joints must be chemical resistant even at high temperatures (col.1, 1.37-44). Nishio teaches that fluoropolymers such as polytetrafluoroethylene are superior in resistance to chemicals and heat (col.4, 1.43-53). One of ordinary skill in the art would have recognized that fluoropolymers that are superior in resistance to chemicals and heat would be beneficial in use in forming the chemical resistant portion of a fume duct joint. One of ordinary skill in the art would have also recognized that Williams et al and Nishio are analogous insofar as both references are concerned with joints between tubular articles made of resins that require chemical resistance.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was

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made to form the tubular inner wall portion of Williams et al so that it includes a fluoropolymer material, since Williams et al teaches that the inner wall portion must be chemical resistant because corrosive chemicals pass through the inside the duct system and since Nishio teaches that fluoropolymers are well known in the art of tube joints and connectors to be chemical and heat resistant.

Response to Amendment

18. The declaration under 37 CFR 1.132 filed March 1, 2006 is insufficient to overcome the rejection of claims 1-3, 5, 7-15, and 26-35 based upon 35 U.S.C. 103 as set forth in the last Office action because: fails to set forth facts and it is not germane to the rejection at issue.

The declaration as it pertains to the 35 U.S.C. 102 rejection pending the previous Office Action it is not germane to the rejection at issue because secondary considerations are not germane to 35 U.S.C. 102 rejections. However, in light of the fact that the claims were amended to overcome the anticipation rejection the declaration will be considered with regards to the currently presented 35 U.S.C. 103 rejections involving Williams et al.

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The declaration does not overcome the new 35 U.S.C. 103 rejections for two major reasons. First, the declaration is provided to show that the claimed integral one-piece structure is unobvious over the slip collar of Williams et al. However, the Williams et al reference anticipates the integral one-piece structure limitation, because as shown in Figures 7 and 7a and described in column 8, lines 43-52, the tubular outer wall portion, the tubular inner wall portion, and the intermediate portion are all bonded together by adhesive and therefore form an integral one-piece structure. Second, the declaration does not provide evidence or facts of unexpected result. It is well settled that unexpected results must be established by factual evidence (MPEP 716.01(c) I). Furthermore, any differences between the claimed invention and the prior art may be expected to result in some differences in properties. The issue is whether the properties differ so such an extent that the difference is really unexpected (MPEP 716.02).

ANSWERS TO APPLICANT'S ARGUMENTS

19. Applicant's arguments regarding the 35 U.S.C. 102 rejections of claims 1-3, 5, 8-15, and 26 as anticipated by Williams et al have been considered but they are moot since the rejections have been withdrawn.

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20. Applicant's arguments regarding the 35 U.S.C. 103 rejections of claims 4 and 6 of record have been considered but they are moot since the rejections have been withdrawn.

21. Applicant's arguments regarding the 35 U.S.C. 103 rejection of claim 7 over Williams et al in view of Shea have been fully considered but they are not persuasive.

In response to Applicant's argument that Shea fails to remedy the deficiencies of Williams et al, see the new 103 rejections over Williams et al in view of Shea presented above.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fruck (USPN 4,400,019); Gotoh (USPN 6,494,501).

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this

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action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:00am-4:30pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher P Bruenjes
Examiner
Art Unit 1772

CPB
April 6, 2006


HAROLD PYON
SUPERVISORY PATENT EXAMINER

1772

4/7/06